

### **REMARKS**

Of the originally filed claims 1-36, Applicant has cancelled claims 31-36 without prejudice. Accordingly, claims 1-30 are currently pending. In the August 14, 2007 Office Action, the Examiner rejected claims 1-36 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 6,134,550 to Van Oorschot et al. ("Oorschot"). Applicant has cancelled claims 31-36 from further consideration in this application. Applicant is not conceding in this application that those claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the allowable subject matter noted by the examiner. Applicant respectfully reserves the right to pursue these and other claims in one or more continuations and/or divisional patent applications. Applicant respectfully traverses the remaining rejections for the reasons set forth hereinbelow.

#### **A. Claims 1-30 Are Not Anticipated by Van Oorschot**

In response to the Examiner's rejection of claims 1-30 as being anticipated by Oorschot, Applicant respectfully requests reconsideration and withdrawal of the rejection because Oorschot's disclosure of system for employing trusted paths to determine the validity of a certificate does not anticipate the present invention's scheme for computing digital certificate trust paths using transitive closures by determining a set of trust relations between a set of certificate authorities (CAs) in a trust web, representing the set of trust relations in an adjacency matrix, performing a transitive closure computation on the adjacency matrix to generate a set of inter-CA trust path indicators, and performing an all-pairs-shortest-paths computation on the adjacency matrix to generate multiple sets of shortest trust paths between the certificate authorities. *See, e.g.*, claim 1. Nor does Oorschot anticipate the invention recited in claims 10-21 which is directed toward the processing the operations of certificate authorities by establishing at a first certificate authority (CA) a trust relation with a second certificate authority, and then sending a trust relation update message to a central trust web agent, wherein the central trust web agent processes trust relation information for a set of certificate authorities within a trust web. *See, e.g.*, claim 10. Oorschot also fails to disclose the invention recited in claims 22-30 which is directed toward the processing the operations of certificate authorities by receiving at a central trust web agent from a certificate authority (CA) a trust relation

update message, wherein the central trust web agent processes trust relation information for a set of certificate authorities within a trust web, and wherein the trust relation update message indicates a change in a set of trust relations for the certificate authority; and modifying a set of trust relations for the set of certificate authorities within the trust web based on an indicated request in the trust relation update message. *See, e.g.,* claim 22.

The rejection of claims 1-9 relies on the assertion that the requirements of the independent claims (e.g., claim 1) are found in Oorschot at col. 4, lines 52-63 and Figure 7a and 7b. *See, Office Action*, p. 2. The entirety of the cited passage is set forth below:

For example, where a high degree of compilation is performed, the certificate chain data may be a list of all certification authorities in a shortest trusted path starting with a subscriber's own CA and ending with the target CA that issued the certificate of the subscriber that sent a digitally signed message. The compiled certification authority trust data serves as certificate chain data that may be for example, a table of trust relationships among the certificate issuing units in a community of interest, to facilitate rapid validity determination of the certificate by a plurality of requesting units. By way of example, the compilation may consist of populating a database that can be repeatedly queried by multiple subscribers to provide a preferred chain of certificates in a shortest trusted path among two subscribers, or between their respective CAs.

Oorschot Patent, col. 4, lines 52-66. Applicant strongly disagree that Oorschot discloses the claimed features, since there is no reference to any “adjacency matrix” nor the performance of any “transitive closure computation on the adjacency matrix” or any “an all-pairs-shortest-paths computation” as variously recited in claims 1-9.

The rejection of claims 10-21 relies on the assertion that the requirements of the independent claims (e.g., claim 10) are found in Oorschot at col. 5, lines 16-24 and 53-61 and col. 6, lines 1-11. *See, Office Action*, p. 3. However, the cited passages refer separately to creating a preferred certificate chain and to periodically updating the certificate chain data, but does not disclose or suggest “sending a trust relation update message to a central trust web agent, wherein the central trust web agent processes trust relation information for a set of certificate authorities within a trust web” as variously recited in claims 10-21.

As for the rejection of claims 22-30, the Examiner asserts that the requirements of the independent claims (e.g., claim 22) are found in Oorschot at col. 5, lines 54-57 and col. 7, line 62 to col. 8, line 13. *See, Office Action*, pp. 4-5. However, the cited passages refer separately to a periodic polling operation by the certificate chain data generator

determine whether data updates have occurred. Thus, there is no disclosure or suggestion of receiving “trust relation update messages” at the central trust web agent which indicate a change in a set of trust relations for the certificate authority as variously recited in claims 22-30.

To establish a *prima facie* case of anticipation, the Examiner has the burden of pointing out where each and every element of the claimed invention, arranged as required by the claims, are found in the Oorschot reference, either expressly or under the principles of inherency. *See generally, In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Because at least the foregoing requirements of the claims are missing, Applicants respectfully request that the anticipation rejection of claims 1-30 be withdrawn and that the claims be allowed.

### **CONCLUSION**

In view of the amendments and remarks set forth herein, Applicant respectfully submits that all pending claims are in condition for allowance and request that a Notice of Allowance be issued. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned at 512-338-9100.

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Respectfully submitted,

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